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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,379	11/14/2003	Ranjith Purushothaman	016295.1458	1609

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EXAMINER	
DINH, KHANH Q	

ART UNIT	PAPER NUMBER
2151	

NOTIFICATION DATE	DELIVERY MODE
05/27/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

debbie.allen@bakerbotts.com

Office Action Summary	Application No.	Applicant(s)	
	10/713,379	PURUSHOTHAMAN ET AL.	
	Examiner	Art Unit	
	Khanh Dinh	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to the Amendment and Remarks filed on 2/29/2008. Claims 1-23 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Nguyen et al., US pat. No.6,609,213.

As to claim 1, Nguyen discloses a method of failover in a cluster having one or more cluster nodes, comprising:

providing a second server operative with said cluster and detecting a failed process on one of said cluster nodes (providing a backup server in case a server fails in a cluster group, see abstract, fig.1, col.4 line 19 to col.5 line 16); and duplicating said process on a virtual node on said second server; wherein said process is resumed on said virtual node (see figs.2, 2a, col.5 line 16 to col.6 line 49).

As to claim 2, Nguyen discloses said second server is a failover server (see col.6 lines

21-64).

As to claim 3, Nguyen discloses said second server is a backup server (assuming duties of the failing server, see fig.2, col.6 line 21 to col.7 line 8).

As to claim 4, Nguyen discloses a system comprising:
a cluster (16 fig.1), said cluster composed of one or more cluster nodes (server nodes), each of said cluster nodes constructed and arranged to execute at least one process (see fig.1, abstract, col.4 line 19 to col.5 line 16); and a second server, said second server operative with said cluster, said second server having one or more virtual nodes, each of said virtual nodes being constructed and arranged to execute said process of said one or more cluster nodes; wherein if one or more of said cluster nodes fails, then said process of said failed cluster node is transferred to one of said virtual nodes of said second server (assuming duties of the failing server, see fig.2, 2a, col.5 line 16 to col.6 line 49).

Claims 5 and 6 are rejected for the same reasons set forth in claims 2 and 3 respectively.

As to claim 7, Nguyen discloses a third server, said third server operative with said second server, said third server having one or more virtual nodes, each of said virtual nodes being constructed and arranged to execute the instructions of one or more virtual

nodes of said second server (see fig.2, col.5 lines 16-58).

As to claim 8, Nguyen discloses said second server is a failover server and said third server is a backup server (see col.6 lines 21-64).

As to claim 9, Nguyen discloses a system comprising:
a cluster (16 fig.1), said cluster composed of one or more cluster nodes (server nodes), each of said cluster nodes constructed and arranged to execute one or more processes; a distributed cluster manager (14 fig.1) operative with each of said cluster nodes, said distributed cluster manager constructed and arranged to detect failure of said one or more processes on said one or more cluster nodes (providing a backup server in case a server fails in a cluster group, see abstract, fig.1, col.4 line 19 to col.5 line 16); and a second server, said second server operative with said distributed cluster manager, said second server having a dynamic virtual failover layer operative with said distributed cluster manager, said second server further having one or more virtual nodes operative with said dynamic virtual failover layer, each of said virtual nodes being constructed and arranged to execute said one or more processes of said one or more cluster nodes; wherein if one or more of said cluster nodes fails, then said one or more processes of said failed cluster node are transferred to one of said virtual nodes of said second server (assuming duties of the failing server, see fig.2, 2a, col.5 line 16 to col.6 line 49).

As to claim 10, Nguyen discloses a third server, said third server operative with said

distributed cluster manager, said third server having a dynamic virtual failover layer operative with said distributed cluster manager, said third server further having one or more virtual nodes operative with said dynamic virtual failover layer of said third server, each of said virtual nodes of said third server being constructed and arranged to execute said one or more processes of said one or more cluster nodes (see fig.2, 2a, col.5 lines 16-58).

Claims 11-13 are rejected for the same reasons set forth in claims 2, 2 and 3 respectively.

As to claim 14, Nguyen discloses an apparatus composed of one or more cluster nodes (16 fig.1) having at least one computer, said computer having at least one microprocessor and memory capable of executing one or more processes, said apparatus further comprising:
a second server, said second server operative with said cluster, said second server having one or more virtual nodes, each of said virtual nodes being constructed and arranged to execute said process of said one or more cluster nodes (providing a backup server in case a server fails in a cluster group, see abstract, fig.1, col.4 line 19 to col.5 line 16); wherein if one or more of said cluster nodes fails, then said process of said failed cluster node is transferred to one of said virtual nodes of said second server (assuming duties of the failing server, see figs.2, 2a, col.5 line 16 to col.6 line 49).

Claims 15-17 are rejected for the same reasons set forth in claims 2, 3 and 7 respectively.

As to claim 18, Nguyen discloses said second server is a failover server and said third server is a backup server (see fig.2, col.6 line 21 to col.7 line 8.

Claims 19-23 are rejected for the same reasons set forth in claims 9-13 respectively.

Response to Arguments

4. Applicant's arguments filed on 2/29/2008 have been fully considered but they are not persuasive.

- Applicant asserts that the cited reference does not disclose detecting a failed process on one of said cluster nodes and duplicating said process on a virtual node on said second server.

  Examiner respectfully disagrees. Examiner respectfully point out that the cited reference discloses the Applicant's claimed invention by showing detecting a failed process on one of said cluster nodes and duplicating said process on a virtual node on said second server (providing a backup server in case a server fails in a cluster group; for example, if the server (14a fig.2) failed to response to the heartbeat signal, then the recovery virtual server (44a fig.2a) will be brought online to assume the identity of the failing server,

see abstract, figs.1, 2, col.4 line 19 to col.6 line 49).

- Applicant asserts that the cited reference does not disclose "a second server, said second server operative with said cluster, said second server having one or more virtual nodes, each of said virtual nodes being constructed and arranged to execute said process of said one or more cluster nodes; wherein if one or more of said cluster nodes fails, then said process of said failed cluster node is transferred to one of said virtual nodes of said second server".

Examiner respectfully point out that Nguyen discloses a second server (44a fig.2a), said second server operative with said cluster, said second server having one or more virtual nodes, each of said virtual nodes being constructed and arranged to execute said process of said one or more cluster nodes; wherein if one or more of said cluster nodes fails, then said process of said failed cluster node is transferred to one of said virtual nodes of said second server (assuming duties of the failing server and providing a backup server in case a server fails in a cluster group; for example, if the server (14a fig.2) failed to response to the heartbeat signal, then the recovery virtual server (44a fig.2a) will be brought online to assume the identity of the failing server, see abstract, figs.1, 2, col.4 line 19 to col.6 line 49, see fig.2, col.5 line 16 to col.6 line 49).

- Applicant asserts that the cited reference does not disclose if one or more of said cluster nodes fails, then said one or more processes of said failed cluster node are transferred to one of said virtual nodes of said second server.

Examiner respectfully point out that Nguyen discloses if one or more of said cluster nodes fails, then said one or more processes of said failed cluster node are transferred to one of said virtual nodes of said second server (assuming duties of the failing server and providing a backup server in case a server fails in a cluster group; for example, if the server (14a fig.2) failed to response to the heartbeat signal, then the recovery virtual server (44a fig.2a) will be brought online to assume the identity of the failing server, see abstract, figs.1, 2, col.4 line 19 to col.6 line 49, see fig.2, col.5 line 16 to col.6 line 49) as rejected above.

As a result, cited prior art does disclose a computer system, as broadly claimed by the Applicants. Applicants clearly have still failed to identify specific claim limitations that would define a clearly patentable distinction over prior art.

Conclusion

5. Claims 1-23 are rejected.

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Dinh whose telephone number is (571) 272-3936. The examiner can normally be reached on Monday through Friday from 8:00 A.m. to 5:00 P.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, FOLLANSBEE JOHN, can be reached on (571) 272-3964. The fax phone number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner for patents

P O Box 1450
Alexandria, VA 22313-1450

/Khanh Dinh/
Primary Examiner, Art Unit 2151